REMARKS

1. In response to the Office Action mailed April 28, 2009, Applicant respectfully requests reconsideration. Claims 1-33 and 58 were last presented for examination. In the outstanding Office Action, claims 1-33 and 58 were rejected. Claims 3, 18, and 58 have been amended. No claims have been added or cancelled. Upon entry of this paper, claims 1-33 and 58 will remain pending in this application. Of these thirty-four (34) claims, 3 claims (claims 1, 16 and 58) are independent.

2. Based upon the above Amendment and following Remarks, Applicant respectfully requests that all outstanding objections and rejections be reconsidered, and that they be withdrawn.

Priority Claim

3. Applicant notes with appreciation the Examiner's acknowledgement of foreign priority under 35 U.S.C. §119.

Drawings

4. Applicant notes with appreciation the Examiner's acceptance of the drawings filed on March 4, 2005.

Claim Rejections under §103 – Jeutter in view of Kung

5. Claims 1-4, 11, 12, 16-19, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,314,453 to Jeutter in view of U.S. Patent No. 6,366,817 to Kung. Applicant respectfully requests reconsideration for at least the following reasons.

The proposed combination of Jeutter and Kung does not contain all elements of Applicant's claims

6. Independent claim 1 recites, in part, "measuring the strength of a magnetic field proximal to the external transceiver, wherein the magnetic field is generated at least in part by the external

transceiver...." (*See,* Applicant's claim 1, above.) Applicant respectfully submits that none of the cited references teach this limitation of claim 1.

7. Jeutter is directed to a medical device that is implanted behind a tissue barrier within a person's body. (*See,* Jeutter, col. 2, lns. 33-36.) Jeutter discloses that the internal receiver includes a magnet affixed to it. (*See,* Jeutter, Fig. 2, ferrous magnet 27; col. 3, lns. 15-20.) The external transmitter comprises a magnetically operated reed switch that senses the presence of the internal magnet to determine whether the external transceiver should transmit power to the internal receiver. (*See,* Jeutter, col. 4, lns. 63 - col. 5 ln. 5.) As such, Jeutter merely discloses detecting the presence of an internal magnet.

8. Jeutter, however, does not disclose measuring, proximal to an external receiver, a magnetic field generated at least in part by the external transceiver. In the Office Action, the Examiner acknowledges this defect of Jeutter and instead relies on Kung for allegedly teaching this limitation. (*See*, Office Action, pg. 4, "Jeutter...fails to teach that the magnetic field is generated at least in part by the external transceiver.") Applicant respectfully disagrees that Kung cures this defect of Jeutter for at least the following reasons.

9. Kung is directed to an electromagnetic field source for providing electromagnetic energy to a secondary coil implanted in a recipient. (*See*, Kung, Abstract.) In an embodiment of Kung, a plurality of primary coils 110A and 110B are embedded in a mattress. (*See*, Kung, col. 7, lns. 41-42, FIG. 1 and 2.) The recipient may then lay on the mattress and electromagnetic energy is transmitted from the primary coils to the secondary coil implanted in the recipient. (*See,* Kung, col. 3 lns. 3-10.). Kung further discloses a proximity detector 126 that can determine the approximate distance between the primary coils and the secondary coil, and adjust the amount of current to the primary coils. (*See*, Kung, col. 3 lns.13-16, FIG. 1.)

10. Kung discloses that the distance between a primary coil and a secondary coil is measured by determining the resonant frequency of the primary coil. (*See*, Kung, col. 19 lns. 14-39.) Particularly, Kung discloses that the resonant frequency of the primary coil is first determined when the coil is not in the presence of the secondary coil. (*See*, Kung, col. 19 lns. 16-18.) Then, the resonant frequency is determined when the primary coil is in the presence of the secondary coil. (*See*, Kung, col. 19 lns. 21-25.) The difference in frequencies, referred to as the

frequency shift, can thus be measured. Using principals of mutual inductance, this frequency shift can then be converted to determine the distance between the primary and secondary coils. (*See*, Kung, col. 19, lns. 25-49.)

11. As such, Kung discloses determining the proximity between two coils by measuring the resonant frequency of the primary coil and comparing this measurement to the resonant frequency of the primary coil when not in the presence of the secondary coil. Thus, Kung does not teach measuring the strength of a magnetic field generated at least in part by an external transceiver. Rather, Kung discloses measuring a shift in the resonant frequency of a primary coil.

12. Applicant therefore respectfully submits that Kung fails to cure the above-noted defect of Jeutter and likewise fails disclose "measuring the strength of a magnetic field proximal to the external transceiver, wherein the magnetic field is generated at least in part by the external transceiver," as recited in claim 1. As such, Applicant respectfully requests that the rejection of independent claim 1 be reconsidered and withdrawn for at least this reason.

13. Independent claim 16 recites, in part, "An apparatus … comprising: means, for measuring the strength of a magnetic field proximal to the external transceiver, wherein the magnetic field is generated at least in part by the external transceiver." Applicant, accordingly, respectfully requests that the Examiner reconsider and withdraw the rejection of independent claim 16 for at least similar reasons to those discussed above.

14. As a secondary matter, Applicant note that the Examiner identified col. 15 lines 50-56 as the relied on portion of the Kung specification. (*See*, Office Action, pg. 4.) This portion of Kung refers to the orientation of the coils in an embodiment of Kung. (*See*, Kung, col. 15 lns. 50-56.) Applicant believes the Examiner meant to refer to col. 19 of Kung, which refers to the above-discussed proximity detector of Kung, rather than col. 15 of Kung.

The proposed combination of Jeutter and Kung would render Jeutter unsatisfactory for its intended purpose

15. Applicant further respectfully submits that the proposed combination of Jeutter and Kung is improper for at least the additional reason that the Examiner has failed to provide a rational underpinning for combining Jeutter and Kung.

16. The Manual of Patent Examining and Procedure (MPEP) states that "[t]he key to supporting any rejection under 35 U.S.C. 103 is the ***clear articulation of the reason(s) why*** the claimed invention would have been obvious." *See* MPEP § 2142 (emphasis added). In addition, the MPEP states that

> The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some ***articulated reasoning*** with some ***rational underpinning*** to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also *KSR,* 550 U.S. at ___ , 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval). (*See* MPEP § 2142 (emphasis added).)

17. In support of the proposed combination, the Office Action asserts:

> It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the generated magnetic field as taught by Jeutter with a magnetic field generated at least in part by Kung, since such a modification would provide the predictable results of allowing a physician or a technician to easily access the magnetic field generate and thus more easily perform maintenance on the generator. (*See*, Office Action, pg. 4-5.)

18. Applicant respectfully submits that substituting the externally generated magnetic field of Kung for the internal magnet of Jeutter, as proposed by the Examiner, would render Jeutter unsatisfactory for its intended purposes.

19. As noted above, Jeutter discloses a mechanism for detecting the presence of an implanted receiver by detecting the magnetic field of an implanted magnet. If, however, the internal magnet of Jeutter was replaced with an externally generated magnetic field, as suggested by the Examiner, the system of Jeutter would not be able to locate the implanted receiver. Instead, the system of Jeutter would always detect the presence of the collocated externally generated

magnetic field. Moreover, Jeutter does not disclose any mechanism that may be used to determine the position of an internal receiver relative to an external transceiver based on the measurement of an externally generated magnetic field.

20. As such, Applicant respectfully submits that if the internal magnet of Jeutter was replaced with an externally generated magnetic field, the system of Jeutter would be unable to determine whether the internal receiver was present or not. Thus, the combination of Jeutter and Kung proposed by the Examiner would render the system of Jeutter unsatisfactory for its intended purpose.

21. As held by the Federal Circuit, "[i]f the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification...." (*In re Gordon,* 733 F.2d 900 (Fed. Cir. 1984); *also see*, MPEP §2143.01(V).)

22. As such, because modifying the generated magnetic field as taught by Jeutter with an externally generated magnetic field as taught by Kung would render Jeutter unsatisfactory for its intended purpose, Applicant submits that the proposed combination is improper. Applicant therefore respectfully requests that the rejections under 35 U.S.C. §103 should be reconsidered and withdrawn for this additional reason.

Claim Rejections under §103 – Chen in view of Kung

23. Claims 1-7, 11-22 and 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Kung. Claims 8-10, 23-27, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Kung as applied to claim 1 above, and further in view of U.S. Patent Application Publication No. 2003/0074035 to Bornhoft et al. (hereinafter, "Bornhoft"). Applicant respectfully requests that the rejection be reconsidered and withdrawn for at least the following reasons.

The proposed combination of Chen and Kung does not contain all elements of Applicant's claims

24. As discussed in Applicant's prior response, Chen is directed to determining the alignment and position of an external device relative to an internal device. (*See*, Chen, Abstract.) To

ensure optimal coupling between the external and internal devices, two permanent magnets are disposed at spaced-apart positions on the internal receiver. (*See*, Chen, Abstract.) The strength of the two internal permanent magnets is sensed by sensors in the external unit. (*See*, Chen, Abstract.) Chen further discloses a range control that may correlate the strength of the detected magnetic field to a distance separating the external and internal devices. (*See*, Chen, col. 6 lns. 3-15.)

25. As such, Chen, like Jeutter, discloses detecting a magnetic field generated by an internal magnet. Accordingly, Chen likewise does not disclose "measuring the strength of a magnetic field proximal to the external transceiver, wherein the magnetic field is generated at least in part by the external transceiver," as recited by Applicant's amended claim 1. In the Office Action, the Examiner relied on Kung for allegedly curing this defect of Chen. Applicant respectfully disagrees.

26. As discussed above, Kung discloses determining the proximity between two coils by measuring the resonant frequency of the primary coil and comparing this measurement to the resonant frequency of the primary coil when not in the presence of the secondary coil. Thus, Kung does not teach measuring a magnetic field generated at least in part by an external transceiver. Rather, Kung discloses measuring a shift in the resonant frequency of a primary coil.

27. Applicant therefore respectfully submits that Kung fails to cure the above-noted defect of Chen and likewise fails disclose "measuring the strength of a magnetic field proximal to the external transceiver, wherein the magnetic field is generated at least in part by the external transceiver," as recited in claim 1.

28. Independent claim 16 recites, in part, "An apparatus … comprising: means for measuring the strength of a magnetic field proximal to the external transceiver, wherein the magnetic field is generated at least in part by the external transceiver." Applicant, accordingly, respectfully requests that the Examiner reconsider and withdraw the rejection of independent claim 16 for at least similar reasons to those discussed above.

29. Thus, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claim 1 for at least the reason that the Examiner has failed to show that each and every element of Applicant's claim 1 was known in the prior art.

The proposed combination of Chen and Kung would render Chen unsatisfactory for its intended purpose

30. Applicant further respectfully submits that the rejection of claim 1 be reconsidered and withdrawn for at least the additional reason that the Examiner has failed to articulate a reason with a rational underpinning for combining Chen and Kung.

31. In the Office Action, the Examiner relied on the identical basis for combining Chen and Kung as the Examiner relied on for allegedly supporting a combination of Jeutter and Kung. As with the combination of Jeutter and Kung, combining Kung with Chen would render Chen unsatisfactory for its intended purpose.

32. As noted above, Chen discloses being able to detect the presence of an internal receiver by sensing the presence of magnets implanted along with the internal receiver. If these internal magnets were replaced with an externally generated magnetic source, then the system of Chen would be unable to detect the presence of the internal receiver. Instead, the system of Chen would simply detect the externally generated magnetic source, which if collocated with the external transceiver as suggested by the Examiner, would always be detected by the detection mechanism of Chen. Thus, if the internal magnets of Chen were replaced with an externally generated magnetic source, the system of Chen would be unable to locate the implanted receiver and thus would be rendered unsatisfactory for its intended purpose.

33. Applicant therefore respectfully requests that the rejection of independent claims 1 and 16 be reconsidered and withdrawn for at least the additional reason that the Examiner has failed to articulate a reason with a rational underpinning for combining the references.

Claim Rejections under §102

34. Claim 58 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,138,681 to Chen et al. (hereinafter, "Chen").

35. Independent claim 58, as amended, recites "means for indicating that the external transceiver has been displaced when the measured strength of the magnetic field proximal to the external transceiver is greater than the threshold value." (*See*, Applicant's amended claim 58, above).

36. In the Office Action, the Examiner alleges that Chen discloses not illuminating an LED when the measured magnetic strength falls below a threshold value. The Examiner, however, alleges that the term "exceeds" previously recited in claim 58 covers the situation where a measured value extends beyond or outside of, or goes beyond the limits of a threshold. (*See*, Office Action, pg. 2.) The Examiner thus concluded that the term "exceeds" covers a measured magnetic strength falling below a threshold.

37. Applicant has amended independent claim 58 to replace the term "exceeds" with "is greater than" to clarify that the limitation of claim 58 covers "when the measured magnetic strength of the magnetic field proximal to the external transceiver is greater than the threshold value."

38. Applicant therefore respectfully submits that, as amended, Chen does not anticipate or render obvious "means for indicating that the external transceiver has been displaced when the measured strength of the magnetic field proximal to the external transceiver is greater than the threshold value," as recited by independent claim 58. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of independent claim 58.

Dependent claims

39. The dependent claims incorporate all the subject matter of their respective independent claims and add additional subject matter which makes them independently patentable over the art of record. Accordingly, Applicant respectfully asserts that the dependent claims are also allowable over the art of record.

Conclusion

40. In view of the foregoing, this application should be in condition for allowance. A notice to this effect is respectfully requested.

41. Applicant reserves the right to pursue any cancelled claims or other subject matter disclosed in this application in a continuation or divisional application. Any cancellations and amendments of above claims, therefore, are not to be construed as an admission regarding the patentability of any claims and Applicant reserves the right to purse such claims in a continuation or divisional application.

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